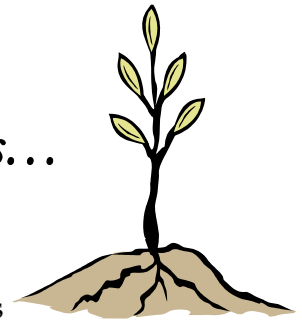


Success Stories



Acorns, Seedlings, Saplings, Oaks...



The Centers of Excellence have spawned over 150 Utah companies to date – 8 in the last fiscal year alone. From tiny startups to maturing, publicly held corporations with hundreds of employees, the commercial offspring of this incubator program form a growing pipeline that today provides exciting, well-paid jobs for recent grads and seasoned workers alike. The following pages illustrate just a few examples of spinout companies that are applying revolutionary technologies to create new jobs, new wealth, and new worldwide recognition for the achievements of Utahns.

Isotruss Structures p. 15

uniAMS p. 19

Applied Biosciences p. 23

Echelon Biosciences p. 27

Myriad Genetics p. 33





Acorns, Seedlings, Saplings, Oaks...

IsoTruss Structures

The woman shown below is smiling because the 47 foot-long pole on her shoulder weighs only 23 pounds, but could support the weight of her car. Now, how about a bicycle frame stronger than steel but weighing only 2 pounds? These are the sort of achievements made possible by the work of Prof. David Jensen at BYU's Center for Advanced Structural Composites, and licensed to 2002 startup company IsoTruss Structures, Inc., in Heber City.

The U.S. Department of Energy has awarded an SBIR grant to the firm, which proposed to demonstrate how their lightweight girders could replace the steel towers that support 1.5 megawatt wind turbines today. Those turbines are over 200 feet tall, and the towers supporting the 250,000 pound load weigh over 300,000 pounds themselves. The proposed IsoTruss tower will weigh only 10,000 pounds, have the same load-bearing capacity and cost far less to transport and install.

The company's first product, however, is more prosaic – but indicative of the enormous potential markets for their technology. Priced at \$325.00, the IsoTruss 'C' class 40 foot long utility pole weighs only 174 pounds, features both greater strength and higher wind resistance than wood poles, contains no poisonous preservatives, and carries a 100 year warranty.





Professor David Jensen, BYU
holding an IsoTruss structure.

IsoTruss Structures, Inc., headquartered in Heber City, Utah, manufactures and sells a revolutionary new material technology that delivers products which have significantly higher strength-to-weight and stiffness-to-weight ratios than common structural forms based on conventional materials such as steel, iron, aluminum, wood, etc. IsoTruss manufactures custom products that meet client specific end-use requirements both as replacement products as well as completely new and unique solutions where designers and engineers have not been limited by conventional materials.

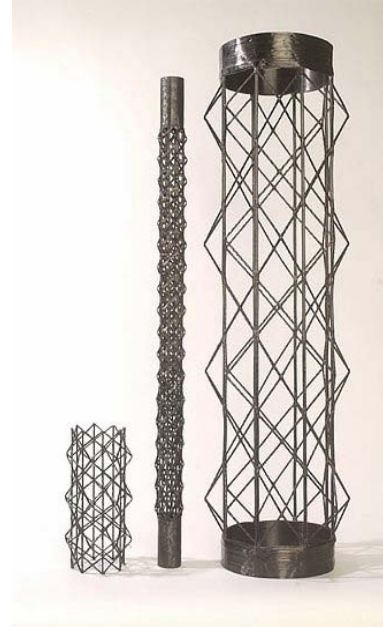
[Center for Advanced Structural Composites](#)



The primary efforts of CASC are focused on the investigating, developing, and testing of advanced structural composites as well as the licensing of patented technologies, such as the IsoTruss. The IsoTruss is a revolutionary, patented (U.S. Patent #5,921,048), lightweight, three-dimensional structural form that takes advantage of the highly directional properties of advanced composite materials. This extremely efficient structure has the potential to enhance innumerable applications ranging from aerospace structures to mechanical systems to sporting equipment to civil infrastructure.

www.isotruss.com

IsoTruss Structures, Inc., is a composite technology company that develops, manufactures and distributes a superior composite structure ("IsoTruss") designed to leverage the weight and performance advantages of fiberglass and carbon composites at costs significantly lower than traditional composite methods. In many applications, the patented structural geometry of IsoTruss provides a superior structural solution that is lighter, stronger and more efficient than traditional composites, metals and wood.



The patented technology behind IsoTruss is the result of over six years and \$3 million dollars in research. The Company has made significant progress in commercializing the IsoTruss technology by simplifying the product design process, developing cost efficient methods of manufacturing, identifying targeted vertical markets for the IsoTruss product and implementing strategies to penetrate those markets.

IsoTruss is the world's first advanced composite structure configured in a lattice geometry for superior strength. This makes IsoTruss the lightest, strongest, most efficient structure available. IsoTruss is 91 percent lighter than steel and 76 percent lighter than aluminum.

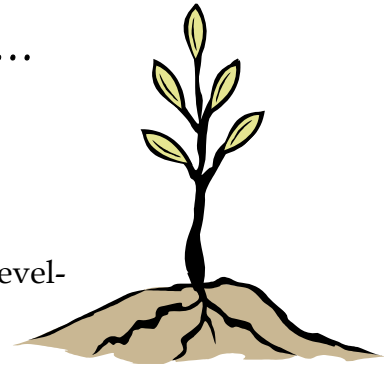
IsoTruss Structures, Inc. has the exclusive United States license to commercialize the IsoTruss technology.

The technology was developed by David W. Jensen, professor of civil engineering, at BYU's Center for Advanced Structural Composites, part of the state of Utah's Centers of Excellence program. Twelve of Jensen's graduate students have studied the IsoTruss for their master's theses, and about a dozen undergraduates also contributed to its development.

The company has received an SBIR Phase 1 award from the Department of Energy for the development of much taller, lighter weight and lower cost Wind turbine towers to generate electricity using IsoTruss™ technology. Under the \$100,000 IsoTruss Structures, Inc. eventually will try to build towers up to 600 feet high, or three times taller than standard steel wind turbine structures. Researchers say the new towers could generate five megawatts of power, compared with a typical 200-foot steel tower's 1.5-megawatt cap. Such a breakthrough could make wind energy cost competitive with fossil fuel produced energy.

Acorns, Seedlings, Saplings, Oaks...

uniAMS



When Samsung, the giant Korean firm, saw the technology developed by Prof. Hosin Lee in the U of U's Center for Advanced Construction Materials, they liked it – so much so that they partnered with the team to create uniAMS, an operating unit of Samsung SDS America (SDSA), and base it in downtown Salt Lake City, where their dozen employees now occupy the 12th floor of the Key Bank building.

Targeted primarily at government transportation authorities, the uniPAVEMENT and uniSURVEY products incorporate state-of-the-art digital image processing technology and user-friendly software to provide civil engineers with objective, cost-effective and facile methods for budgeting, optimizing and scheduling road asset maintenance and repair strategies. Best of all, they can provide the capability of a competing \$500,000 product for under \$25,000 – and it is easier to use.

With customers in a number of states and countries and the ability to expand into other types of asset management markets, uniAMS is now beginning to get traction and grow. Dr. Lee notes that “Bringing SDSA to Utah is an example of successful technology transfer from academia to industry with support from the government. This success was only possible because of an initial seed grant from the Centers of Excellence Program at the Utah Department of Community and Economic Development to the University of Utah.”

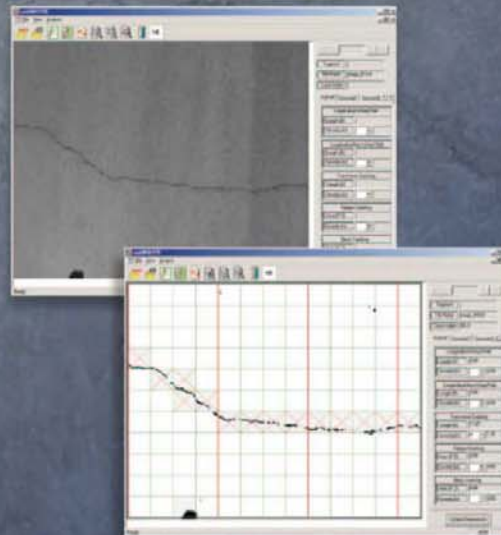


www.uniams.com

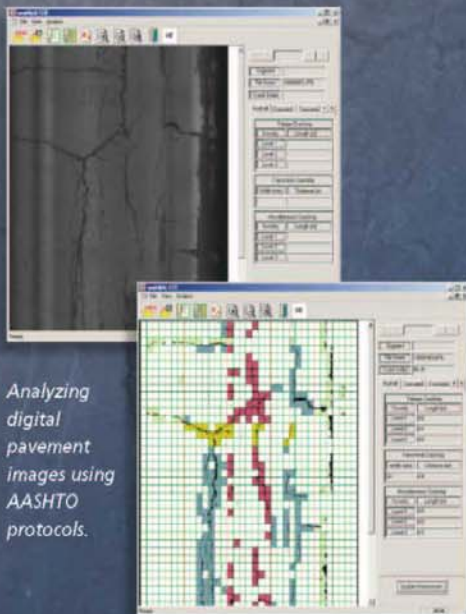
uniSurvey

Better Technology for Better Roads

uniSURVEY is road inventory & condition data surveying and distress measurement software. uniSURVEY uses a state-of-the-art digital image processing technology to analyze pictures of various types of pavement surfaces. By integrating with GIS systems, uniAMS helps city engineers schedule pavement, bridge, sign, and sidewalk condition & inventory surveys. uniSURVEY is able to accept pavement condition data, process that data, and then present images of the overall pavement condition on a color-coded digital map. The collection rules and survey routes are easily definable. uniSURVEY provides city engineers with objective, cost-effective and easy-to-use methods for optimizing and scheduling road asset maintenance and repair strategies.



Computing SHRP crack type, extent, and severity.



Analyzing digital pavement images using AASHTO protocols.

Features

- **Flexible configuration** for distress and inventory tracking.
- **GIS-based survey.** Using interactive digital map, the survey schedule can be planned. Asset condition and inventory data is also easily accessible from the digital map.
- **Built-in Device Interface** can easily control and configure survey equipment such as DMI, GPS, and X-Keypad.

Benefits

- Data collection process produces higher quality results.
- Survey results are easy to generate and easy to work with
- Increased level of objectivity of asset management systems and policies
- Streamlined integration with data collection system

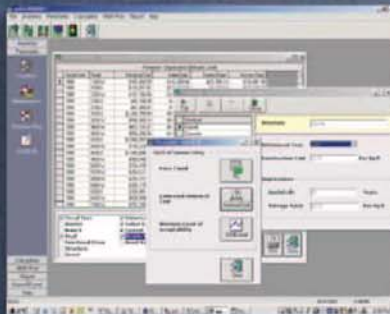
uniBridge uniSidewalk uniPavement

Mapping Maintenance Decisions

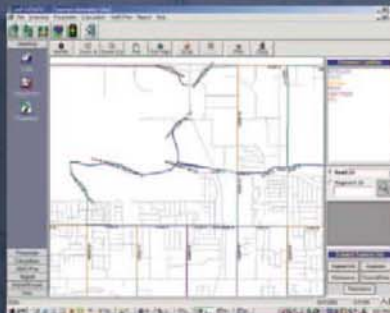
uniPAVEMENT is a GIS-based pavement management system that can automatically determine optimum maintenance strategies, schedule maintenance and program long-term budgets meeting new GASB 34 requirements. uniPAVEMENT helps civil engineers develop the most cost-effective pavement rehabilitation projects for various budgets scenarios. The software has been built with an emphasis on being user-friendly. Even users who are new to pavement management systems can quickly and easily master the intuitive point-and-click interface. uniPAVEMENT also provides extremely credible estimations of existing and future needs. uniPAVEMENT supplements existing local knowledge and practical experience regarding pavement data.



PDA module replaces written forms when performing inspections.



Historical data display and GASB-34 compliant documentation.



Access pavement information from database and GIS map.

Features

- **Easy to use system** with user-friendly menu navigation and screens.
- **User-configurable decision model.** Using the mouse, the user is able to define a customized decision model to process maintenance and repair strategies during budget planning.
- **Asset Value Calculator** calculates the value of an asset for GASB 34 reports automatically.
- **Simulation of multiple maintenance & repair plans** determines the best multi-year Maintenance & Repair strategies based on unlimited budget, condition driven and budget driven scenarios.
- **Section-specific deterioration model** predicts future asset condition of individual sections.

Benefits

- Provide better data to decision makers
- Generate the most cost-effective maintenance strategies
- Reduced time requirements
- Meeting GASB 34 requirements become easier

Services

Excellence from Concept to Completion

Data Collection Services

Samsung SDS America has the knowledge and tools regarding inventory, valuation, and asset condition management to assist government agencies in implementing GASB 34 standards. Samsung SDS America's roadway data collection services feature state-of-the-art automated equipment as well as refined manual methods to provide our clients with the data the need to efficiently manage their roadway infrastructure and inventory.



PROFESSIONAL SERVICES FROM SAMSUNG SDS AMERICA

- Data Collection Services
- Database Update and Conversion Services
- Installation Services
- Education Services
- Equipment Assembly Services
- GIS Map Services
 - Map creation
 - Map and data conversion
 - Map condition report
 - Map-book for data survey



Data Collection Equipment

Samsung SDS America supplies and installs the data collection equipment needed for using uniAMS.

Samsung provides State of the Art integrated data collection systems including: high-speed

digital cameras, differential GPS, accurate Digital Measuring Indexes, programmable keyboards, independent power sources. The uniAMS Data

Collection Equipment can be mounted on to any vehicle and used for surveying immediately.



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www.uniams.com

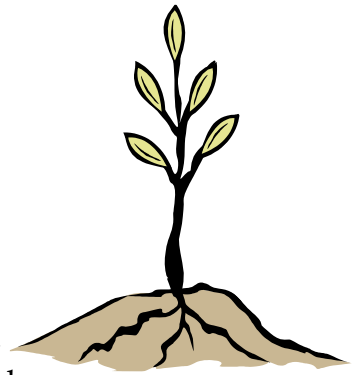
Samsung SDS America
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San Jose, CA 95134
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F: 408.544.4966
sales@usa.samsung.com
www.samsungsdsa.com

SYSTEM REQUIREMENTS

CPU: Pentium or higher
OS: Windows 98, Me, 2000, XP
Hard Drive: Minimum 64 MB available
Memory: 128 MB of RAM
CD ROM: 8x or higher
Monitor: VGA minimum, SVGA recommended
Database: Microsoft Access 2000 using ODBC, ADO

Acorns, Seedlings, Saplings, Oaks...

Applied Biosciences



The Center for Bioremediation at Weber State University is graduating early from the Centers of Excellence Program, having completed its mission of commercializing patented new technologies for cleansing waters contaminated by cyanide, selenium and other recalcitrant pollutants. One part of its legacy will be an undergraduate research laboratory that has both launched students into graduate and medical schools, and served as an inspiration for other faculty - resulting in new student research programs that have enhanced the quality of undergraduate education at WSU. The second legacy is Applied Biosciences, the spinout company that has licensed the technology and recently moved into larger quarters in Salt Lake City. From 2001 revenues of ca. \$300,000, the firm has nearly doubled in the last year, despite the economic downturn, and now employs 11 people with average wages of over \$40,000.

It is a notoriously long, difficult and expensive process for new technologies to gain acceptance in the remediation marketplace, which is dominated by conservative engineering firms and controlled by the Environmental Protection Agency (EPA). With the support of the Centers program, however, Prof. Jack Adams was able to demonstrate his method at full scale in an EPA-supervised, competitive evaluation for treating mine wastes. The WSU technology was not only the only one to actually achieve the EPA cleanup standard; it did so at one-tenth the cost of the existing BDAT (Best Demonstrated Available Technology, as designated by the EPA). Following official recognition as the new BDAT for selenium removal, the last hurdle for the WSU process was removed, and the pathway for the future success of Applied Biosciences was established.

The company expects to roughly double in size again in 2003, with continued rapid growth; based on current market estimates, management anticipates reaching a sales level of some \$40 million by the end of this decade.





OUR MISSION is to help our customers meet strict water quality standards for metals and nitrate and to do it at the lowest possible cost. We work directly for end-user customers and with other water treatment providers to deliver complete and cost-effective treatment solutions

Applied Biosciences began in 1996 to provide innovative environmental solutions to the mining industry. Early successes with water treatment for selenium and arsenic quickly found application in other industries as well. We now provide solutions for a wide range of parameters in a variety of industries. We work closely with our end-user customers and with our engineering and water treatment partners to provide the most cost-effective water treatment systems available



Lead, South Dakota, Aug 28, 2002 - Applied Biosciences of Salt Lake City announced the continued successful operation of a new biological selenium removal plant at a gold mine in the Black Hills of South Dakota. On line since the winter of 2001, the water treatment plant at Wharf Resources in Lead has been removing selenium to below detection in a waste stream being discharged into a fresh-water creek. Selenium

is naturally occurring in the Black Hills region and is common in mining run-off. Applied Biosciences worked closely with Wharf Resources personnel to design and build a treatment plant using an Applied Biosciences' biological process that would cost-effectively treat the selenium year-round. Treatment costs for the new plant have averaged \$0.12 per 1000 gallons treated. Being successfully treated elsewhere on site are also arsenic and nitrate. Applied Biosciences specializes in water treatment for dissolved metals and other inorganic contaminants. For additional information contact Applied Biosciences at 800-280-7852.

SOLUTIONS

Applied Biosciences can design water treatment solutions to fit a wide variety of industries and contexts. Our team of experts in microbiology, chemistry, and engineering can solve new and complex water problems with affordable bench-scale testing and design.

TREATMENT SYSTEMS

For industries with recurring problems and similar streams, Applied Biosciences has developed proven treatment systems. Industrial process streams, mining waste streams and run-off, petroleum refinery water streams and others can be treated right away with ready-to-install designs. Systems range in complexity from low-maintenance pump-and-treat to passive, pond type systems for remote locations.

CONSULTING

Years of experience in bioremediation and water treatment are made available to Applied Biosciences' clients through consulting and customer support services.

PROCESS ENGINEERING and IMPLEMENTATION

Applied Biosciences can design a solution and a system to treat any type of water stream or body. New and complex situations sometimes require new approaches and solutions. Applied Biosciences' engineers and project managers can design and implement step-by-step, from treatability testing through on-site pilot to full-scale, a cost-effective water treatment system for any variety of sites and industries.

WHY CHOOSE ABMet™?

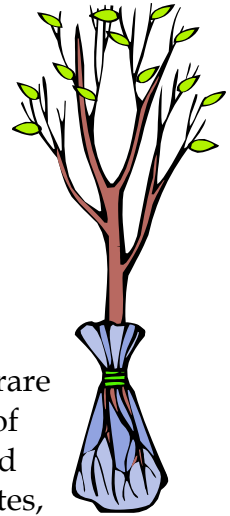
ABMet™ solutions provide key benefits as compared to competing treatment methods: Treatment costs as low as \$0.12 per 1000 gallons treated (a small fraction of the cost of conventional options). Simple system designs with low capital costs. Minimal sludge generation (100 to 1,000 times less than conventional treatment). No rejection stream. And most important, consistent treatment to below detection for target parameters

www.bioprocess.com

Acorns, Seedlings, Saplings, Oaks...

Echelon Biosciences

The first of three separate spin-off companies from the Center for Cell Signaling (CCS) at the University of Utah, Echelon Biosciences, Inc. has grown to 30 employees without raising a dime of investment capital – a rare achievement in the world of biotechnology firms. Building on the work of CCS Director Prof. Glenn Prestwich, the company initially developed and marketed a line of specialty reagents for use in research on cancer, diabetes, inflammation and other disorders.



With collaborations, research contracts, SBIR grants and burgeoning sales (over \$1 million in 2001) fueling growth, Echelon has already out-grown its old space as the company waits to move into a new building at the Research Park (see photo), and their focus has shifted to the next phase of their corporate strategy: creating assays and finding drugs that can prevent the development and progression of diseases, including cancer and diabetes, by blocking lipid signaling pathways.

A two-time recipient of the national Tibbetts Award from the Small Business Administration, Echelon is now poised for a sustained period of growth in which new capital, new discoveries and new partnerships with leading pharmaceutical companies are expected to help forge a new flagship Utah biotechnology company from this successful spin-out.





Echelon Biosciences Inc is a unique drug discovery and development company identifying compounds as potential therapeutics that block critical lipid signaling pathways thereby preventing disease development and progression.



www.echelon-inc.com



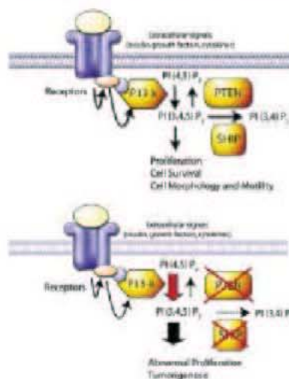
Echelon Biosciences, Inc. (EBI) is a private biotechnology company and is a leader in the field of lipid (phosphoinositide (PI) and isoprenoid) cell signaling research and product development.

Corporate Strategy

- **Phase I:** Development of a specialty product line of high quality reagents primarily intended for research in cancer, diabetes, inflammation, cardiovascular disease, and in immune disorders.
- **Phase II:** Development of high throughput assays to accelerate drug discovery in cancer, diabetes, anti-infectives and other human pathologies.
- **Phase III:** Utilize internally developed assays to discover molecules with therapeutic potential for cancer and diabetes.

Phosphatidylinositol 3-kinase (PI3-K)

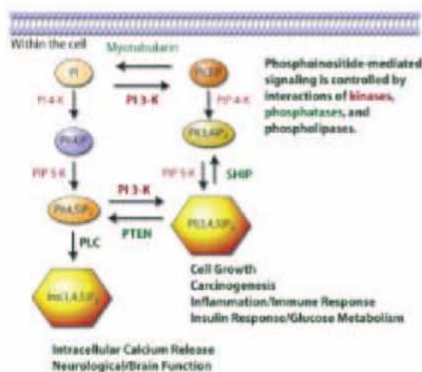
The importance of the PI3K- AKT pathway in various cancers is firmly established. Small molecules have exhibited success as kinase inhibitors in chronic myelogenous leukemia and in lung cancer.



*Gleevec™ is an example of a recently approved kinase inhibitor. EBI has identified a number of PI3K inhibitors and will target specific isoforms involved in ovarian, uterine, breast, and prostate cancer.

*Gleevec, imatinib mesylate is a registered trademark of Novartis Oncology

Phosphoinositide Targeting



- Phosphoinositide polyphosphates (PIPn) are key lipid second messengers in cellular signaling.
- Disruption in signaling enzymes like PI3K and SHIP2 are common in cancer, diabetes and inflammation.
- Disruptions in these enzymes are common to many disease states, including cancer, diabetes, inflammation, and disease.
- Inhibiting one or more of these enzymes (or their isoforms) may provide effective treatment of cancer, diabetes, and drug resistant infections.

Development Pipeline

EARLY STAGE DEVELOPMENT	LATE STAGE DEVELOPMENT	ON THE MARKET
PI-3K ELISA ASSAY		
SYNTHETIC SIGNALING PHOSPHOLIPIDS		
PI-3K NEW ASSAY FORMATS		
SHIP ASSAY		
PI-3K INHIBITORS		
ANTI-INFECTIVES		

Products and Opportunities

PRODUCTS

- Individual lipid signaling reagents
- Non-radioactive screening tools
- Antibodies to detect PIP_n in tissues
- Novel anti infective targets (MEP ENZYMES)

OPPORTUNITIES

- Licenses for screening tools
- Development collaborations in lipid signaling targeting
- Library screening for phosphoinositide converting enzyme inhibitors
- Enzyme isoform activity targeting
- Development of cell based assays
- Licensing opportunities for PI related technologies

Recent company news

September 2002 Echelon is awarded the national Tibbett's Award for Small Business Innovation Research

July 2002 Echelon Biosciences Inc. advances the fight against cancer with new PI-3 Kinase screening technologies

May 10, 2002 Echelon Research Laboratories, Inc. announces name change to Echelon Biosciences INC, and new president

January 2002 Echelon Research Laboratories, Inc. and ComGenex, Inc. announce a drug discovery alliance for novel inhibitors of lipid kinases and phosphatases

March 2001 NIH Awards Echelon Research Laboratories Inc. A Third Phase II SBIR Grant

Milestone Events (last 12 months)...

- Record sales of \$1 million in 2001
- Alliance with ComGenex to identify leads in cancer, and inflammatory diseases.
- Release of the world's first non-radioactive PI3-Kinase assay system for drug discovery and development in cancer, diabetes, cardiovascular disease, and inflammation.

Next twelve month milestones

- Continued record revenue growth, fueled by new products.
- Tumor animal data on PI3-kinase inhibitors with ovarian cancer as target.
- Further collaborations/licenses with pharma companies for drug development.
- Expand patent portfolio

Alliances

	Partner and combi-chem developer for compound screening
	Marketing and co-distribution agreement
	Technology license agreement

Summary

EBI offers exciting development opportunities to participate in the rapidly expanding area of lipid cell signaling. It is a profitable and well developed company with a world class scientific and management team, proprietary and patented technology, large and compelling applications, rapidly developing collaborations, a strong customer list, and clear paths to revenues and profits. We encourage you to discover Echelon Biosciences Inc. by allowing us to tell you more about EBI's exciting future.

CONTACT INFORMATION

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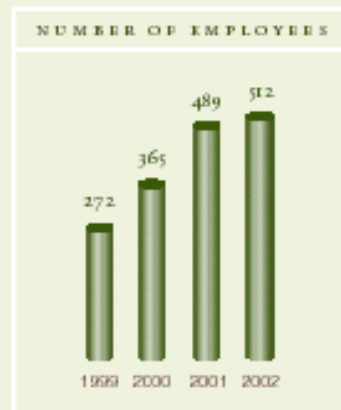
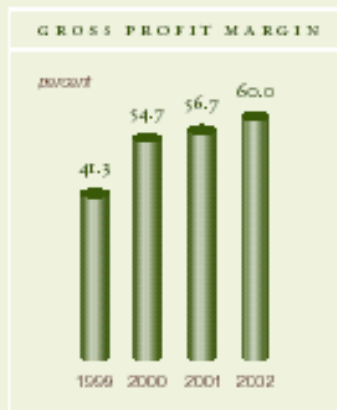
Acorns, Seedlings, Saplings, Oaks...

Myriad Genetics



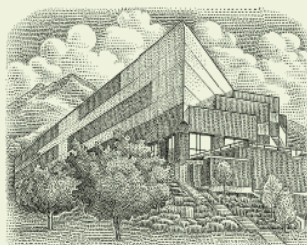
In 1991, Prof. Mark Skolnick established the Center for Cancer Genetic Epidemiology in order to turn knowledge of the genetic causes and origins of common cancers into DNA-based diagnostic tools. By the time spin-off company Myriad Genetics, Inc. went public in late 1995, it already employed 60 people and had attracted international attention to Utah as a center of advanced knowledge and application in that field.

Today, they have in turn spun off two wholly owned subsidiaries: Myriad Pharmaceuticals, Inc., which is developing new drugs for the treatment of such diseases, and Myriad Genetic Laboratories, Inc., which develops and markets DNA diagnostics – as well as Myriad Proteomics, Inc., a joint venture with Oracle and Hitachi bent on analyzing every protein and its interactions in the human body within the next few years. The Myriad family of firms collectively employs over 500 Utahns and boasts over \$50 million in annual sales. Their product range now covers breast cancer, colon cancer, endometrial cancer, melanoma and ovarian cancer. Already one of the most successful offspring of the Centers of Excellence Program, they are expected to keep growing for years to come.



Myriad Genetic Laboratories

Two product introductions during 2002 served to further our worldwide leadership position in cancer predictive medicine. Myriad's product range now covers breast cancer, ovarian cancer, colon cancer, endometrial cancer and melanoma skin cancer.



Myriad is the world leader in cancer predictive medicine. We are developing drugs to prevent and treat cancer and viral diseases to help people live longer, healthier lives.

Myriad Pharmaceuticals

At Myriad, our mission is to discover and develop a new generation of products in predictive and therapeutic medicines with a particular focus on saving lives through the prevention and treatment of cancer and viral diseases.

www.myriad.com



Myriad Genetics

Advancing Drug Discovery and Patient Care Through Genomics

Myriad Genetics Inc. is a biopharmaceutical company focused on the development of therapeutic and diagnostic products using genomic and proteomic technologies. The Company's emphasis on product development is demonstrated in its major business components:

- Therapeutic product development in important disease areas
- Identification of disease-causing genes, as potential drug targets, for major pharmaceutical company partners
- Disease pathway discovery through ProNet® and ProSpec® proteomic technologies to isolate drug targets for development
- Molecular diagnostic testing for inherited risk of disease
- Use of high-throughput DNA sequencing to reveal the genomes of important animal, plant and microbial species

Myriad has two wholly owned subsidiaries – Myriad Pharmaceuticals, Inc., which develops and intends to market therapeutic compounds, and Myriad Genetic Laboratories, Inc., which develops and markets proprietary predictive medicine products. The Company has established strategic alliances with Abbott, Bayer, DuPont, Eli Lilly, Hitachi, Pharmacia, Novartis, Oracle, Roche, Schering AG, Schering-Plough and Syngenta.

